

analyses, dominance was lost in ACEi-using and NYHA class II patients; in these subgroups, the mean ICUR is €17,000–27,000/QALY. **CONCLUSIONS:** Valsartan is expected to be cost-effective for the treatment of Italian patients with mild-to-severe CHF, and can result cost-saving in selected patients, as compared to current standard care.

PCV73

COST-EFFECTIVENESS OF ENDOVASCULAR ANEURYSM REPAIR VERSUS OPEN SURGICAL REPAIR: ACUTE INFRARENAL ABDOMINAL AORTIC ANEURYSM IN AN EMERGENCY SETTING

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OBJECTIVES: To determine the cost-effectiveness of endovascular aneurysm repair (EVAR) versus open surgical repair (OSR) for acute (ruptured or symptomatic intact), infrarenal abdominal aortic aneurysm (AAA) in an emergency setting. **METHODS:** A two-stage cost-utility model was developed for the recent appraisal of EVAR by the National Institute for Health and Clinical Excellence in England and Wales to capture the lifetime costs and benefits of EVAR for non-ruptured AAA. This model was adapted to capture the costs and health outcomes of EVAR for acute AAA. The model population represented a 70-year-old, fit for open surgery, with an acute AAA. A decision-tree model captured the short-term costs and health outcomes of patients during the first 30 days post repair, followed by a Markov model, with monthly cycles during the first 24 months and yearly cycles thereafter, until death. Clinical endpoints included mortality, complications and secondary interventions. Primary data sources included a meta-analysis of 23 studies and the EVAR I randomised controlled trial. Costs were applied from trial data and national reference sources. A discount rate of 3.5% was applied to costs and health outcomes. Univariate and multivariate sensitivity analyses were performed for all parameters. An incremental cost-effectiveness ratio (ICER) reflecting incremental lifetime costs per quality-adjusted life-year (QALY) gained was calculated for the base-case analysis. **RESULTS:** EVAR dominates OSR in the base case analysis. The average QALY gain at 30 years post surgery was 0.064 for EVAR compared with OSR. The results were not sensitive to changes in parameters. **CONCLUSIONS:** The results suggest that EVAR for acute AAA is cost-effective versus OSR with probabilities approaching 100% based on willingness-to-pay thresholds of £20,000 and £30,000.

PCV74

COST-EFFECTIVENESS OF DABIGATRAN ETEXILATE FOR THE PRIMARY PREVENTION OF VENOUS THROMBOEMBOLISM IN PATIENTS UNDERGOING TOTAL HIP OR TOTAL KNEE REPLACEMENT SURGERY

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OBJECTIVES: To evaluate the cost-effectiveness of Dabigatran (DBG) compared to low-molecular-weight heparin (LMWH), for the prevention of venous thromboembolism (VTE) following total hip or knee replacement surgery (THR/TKR) from the perspective of the UK NHS. **METHODS:** DBG (220 mg once daily) was compared to LMWH in patients undergoing THR (prophylaxis duration 28–35 days) and TKR (6–10 days). The 10-week post-surgery acute phase was modeled via a decision tree. A Markov process (1 year cycle length) modelled long-term

events (recurrent VTE, post-thrombotic syndrome [PTS] and consequences of intracranial haemorrhage) for patient's remaining lifetimes. Relative risks for VTE and bleed events were derived from the DBG phase III studies, RE-NOVATE and RE-MODEL which compared DBG with enoxaparin 40 mg once daily. Probabilities of long-term events were estimated from published longitudinal studies. Drug costs (for LMWH a weighted average was used), resource use associated with administration of prophylaxis and the management of clinical events, as well as utility weights, were taken from national sources and published literature. **RESULTS:** Thromboprophylaxis with DBG was less costly than LMWH in TKR and substantially less in THR, since no nursing time is required either in hospital or following discharge for treatment administration. VTE and bleeding rates were similar for DBG and LMWH (all differences non-significant). The probabilistic analysis estimated that DBG saved £93 and £17 per patient on average in THR and TKR respectively; the probability of cost-effectiveness was 99% in THR and 81% in TKR at a willingness to pay threshold of £20,000 per QALY. Results were shown to be robust across a range of further sensitivity analyses. **CONCLUSIONS:** DBG is cost-saving compared to LMWH and non-inferior in terms of efficacy and safety to enoxaparin 40 mg once daily. Therefore DBG can confidently be regarded as cost-effective for the prevention of VTE in patients undergoing THR or TKR.

PCV75

THE IMPACT OF POSTPRANDIAL PEAKS ON CARDIOVASCULAR COMPLICATIONS BEYOND THE HBA1C LEVEL—A HEALTH ECONOMIC ASSESSMENT
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OBJECTIVES: An increasing number of studies is demonstrating that postprandial blood glucose peaks (PPG), which are not necessarily reflected by higher HbA1c values, represent a strong risk factor for the development of cardiovascular complications. This study aims to assess the economic effects of an improved glycemic control by self-monitoring of blood glucose (SMBG) with respect to coronary artery disease (CAD). **METHODS:** We used a Markov model based on the UKPDS risk engine, comparing two type 2 diabetic cohorts (100% male, age 57 years, BMI 29.0, systolic blood pressure 140 mmHg, total cholesterol 5.98 mmol/l, HDL 1.27 mmol/l, baseline HbA1c 8.0%), whereas one cohort performed (SMBG) and the other not. In a first scenario, we assumed a HbA1c improvement of 0.6% in the SMBG group compared to the control group. In a second scenario, an additional reduction of PPG from 10 mmol/l to 7.8 mmol/l was assumed in the SMBG group. **RESULTS:** In scenario 1 the mean life expectancy was 8.35 years (SMBG) vs. 8.33 years (No-SMBG), total cost was €15,793 (SMBG) and €11,217 (No-SMBG). In scenario 2 the mean life expectancy was 8.19 years and 8.01 years (SMBG / No-SMBG group, respectively). The cost effectiveness ratio (ICER) of using SMBG was €228,800 per life year gained (LYG) in scenario 1 and €20,083/LYG (scenario 2). **CONCLUSIONS:** Using only HbA1c as risk factor for CAD leads to an underestimation of the potential benefits of SMBG compared to the combination of HbA1c and PPG. This may lead to a restricted use or even to the exclusion of a worthwhile health technology. The present assessment is focused only on CAD and represents a conservative approach. Further, it has to be examined whether PPG shows similar effects in other diabetes related complications.